

## **MacForth Plus Features**

To maintain complete compatibility with both Apple environments (MFS and HFS) and to add significant new features to the existing MacForth language we developed our latest release - MacForth Plus. MacForth Plus combines previous levels 1, 2, and 3 into one comprehensive manual and combined glossary. New features include: increased performance, multi-tasking, and text file editing. A further description follows.

### **Creating stand-alone applications**

MacForth Levels 1, 2, and 3 are combined into one level, and is called kernel 3.5 or MacForth Plus. The turnkey compiler has been "built-in" so that users of MacForth Plus can produce stand-alone applications, ROYALTY FREE.

### **Speed**

The original 128K Macintosh was not well suited for resident development. We optimized memory and delivered a 32-bit, completely relocatable system within the performance and memory allocation envelope of a traditional 16-bit Forth implementation. To provide the user with approximately 8-10K of additional space in the application heap, roughly 50% of the performance of the initial MacForth 128K system was sacrificed.

Newer Macintoshes have more memory allowing MacForth Plus roughly twice the performance of the previously released systems. The same memory allocation strategy has been used in our Amiga, Atari ST, and OS-9 implementations of Multi-Forth™, providing a high level of compatibility.

### **Editing**

We have moved in the direction of standard text files, though the blocks editor will be available for those who prefer blocks. We provide a MacForth multi-window text editor (similar to MDS Edit) that intercepts and highlights compile errors, but any text editor will work fine. Switcher support is provided if other editors are preferred.

### **Multi-tasking**

Multi-tasking represents an elegant way to solve a certain class of problems on a computer. With the additional memory of the newer Macintoshes, as well as the increased processor speed of the 68020 Macintoshes coming soon, multi-tasking becomes a much more attractive feature than it was on the original 128K Macintosh. We have had the "hooks" in for multi-tasking from the beginning (grandfathered in from Multi-Forth), and several enterprising programmers have actually used it in their applications.

### **Documentation**

The new MacForth Plus manual combines the information (particularly the glossaries) of Levels 1, 2, and 3, as well as in-depth discussion of new features, into a single manual.

### **Support**

We will continue our high level of support. Older versions of MacForth have proven to be an effective tool for applications targeted for 128K Macintoshes and will continue to be supported.



## **CREATIVE SOLUTIONS**

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## PROGRAMMING LANGUAGES & COMPILERS

### MacForth Plus A Multi-tasking Forth Language System for the Macintosh with Editor, IEEE-754 Floating Point, and In-Line Assembler



MacForth Plus is a very complete programming language for the Apple Macintosh. It is a full-featured Forth language that makes good use of the Macintosh user interface. An experienced Forth user will be reluctant to go back to a lesser machine after using MacForth Plus on the Macintosh. A novice will be writing Forth programs quickly thanks to the well-written manual and the tutorial program "Going Forth."

The user manual is well written, clearly printed and furnished in a three-ring binder. It has a table of contents, detailed table of contents, subject-sorted glossary, alpha-sorted glossary and index. You can find the information you require on most MacForth Plus subjects quickly and with minimum effort.

MacForth Plus has a Trace and a

Spring 1988

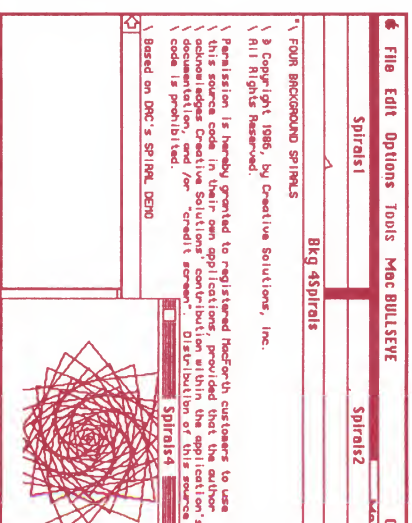
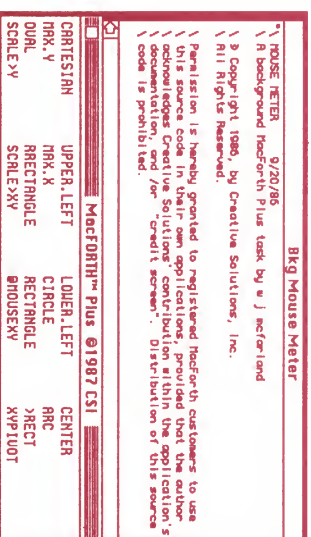
Debug option that allow you to monitor the words executed and stack depth as part of your debugging operation. After you have completely debugged your code, turn off the trace option and recompile the code to get maximum speed of operation. You can also monitor and redesign memory usage.

The Quickdraw interface is speedy and easy to use. It allows you to switch quickly back and forth between the Quickdraw and Cartesian

There is also a handy set of words for menu creation, and good examples and templates to assist you in handling menus for your application. The definition and handling of windows is also made easier by the predefined words in MacForth Plus. Window attributes are assigned by writing code such as "SCROLL.LEFT/RIGHT" to add the horizontal scroll

bar. All features of the Mac are similarly controlled. Other useful features include control of alerts and dialogs, loops (help avoid stack confusion), arrays, structures, memory management, full floating point, and multi-tasking. Overall as a Forth system it compares well with my favorite, Neon.

- **Most outstanding feature:** Wealth of source code and examples included, and multi-tasking feature.
- **Least liked feature:** Tutorial can be



- **In summary:** With MacForth Plus I believe you can create commercial quality applications without having to purchase any other languages.

— Ralph McDonald

Creative Solutions, Inc. Version 3.52.  
Requires at least 512K  
of memory. List price:  
\$199. Not copy  
protected. 68020 and  
Switcher compatible.



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